

CLAIMS

What is claimed is:

1. A single integrated electronics system for an airline seat assembly comprising:

a seat assembly including at least one seat portion;

a plurality of user accessible electronic components;

a single electronics distribution system placed into said seat portion;

an interconnection system that operably interconnects said plurality of user interface components and said single electronics system; and

wherein said single electronics system provides all power conversion requirements for each of said plurality of components.

2. The single integrated electronics system of claim 1, further comprising a personal control unit, wherein said personal control unit is a part of said single electronics distribution system.

3. The single integrated electronics system of claim 2, wherein said at least one seat portion includes a seat-back and said single electronics distribution system is formed into said seat-back.

4. The single integrated electronics system of claim 3, wherein said single electronics distribution system comprises a power converter or a router for each of said electronic components.

5. The single integrated electronics system of claim 1, wherein said interconnection system comprises a ribbon cable adapted to substantially reduce electrical interference inside and outside said interconnection system.

6. The single integrated electronics system of claim 5, further comprising a plurality of said seat assemblies, wherein said ribbon cable comprises the physical interconnection between said plurality of seat assemblies and supplies power to said component.

7. The single integrated electronics system of claim 1, wherein said interconnection system carries power and a signal to said component.

8. The single integrated electronics system of claim 7, wherein said component includes a plurality of said components in each seat assembly, wherein said single electronics distribution system transfers said power and said signal from said ribbon cable to each of said plurality of components.

9. The single integrated electronics system of claim 8, wherein said plurality of components comprises a personal control unit, a video display, an audio outlet, and a telephone; and wherein said personal control unit allows a user to control the plurality of components.

10. The single integrated electronics system of claim 1, wherein said plurality of components includes a video display unit, an audio interface, a computer interface, and a telephone.

11. The single integrated electronics system of claim 1, wherein at least one of said user accessible components is located in an arm portion of said seat assembly.

12. The single integrated electronics system of claim 1, wherein at least one of said user accessible components is located in a seat back of said seat assembly.

13. An aircraft seat assembly architecture comprising;
- a seat assembly including at least one arm portion or one back portion;
- a seat component extending from said seat assembly including:
- a video display unit;
 - a telephone;
 - a unitary electronics distribution system including a ribbon cable integrated into said seat assembly; and
- wherein said unitary electronics distribution system provides the only power and information management system for each of said video display unit, said telephone, and said computer coupling.

14. The airline seat architecture of claim 13, further comprising a control unit that produces a signal, operably interconnecting said seat component and said unitary electronics distribution system wherein said signal from said control unit allows a user to manipulate the signal distributed by said unitary electronics distribution system.

15. The airline seat architecture of claim 13, further comprising an interconnection system that operably interconnects said unitary electronics distribution system and said seat component.

16. The airline seat architecture of claim 15, wherein said interconnection system is a ribbon cable.

17. The airline seat architecture of claim 16, wherein said interconnection system interconnects a plurality of said unitary electronics distribution systems in a plurality of individual airline seats.

18. A seat assembly for an aircraft comprising:

a seat portion including at least one of a seat back and a seat cushion adapted to be used by a passenger in an aircraft;

a support structure that suspends said seat portion above a surface;

a plurality of passenger usable electronic components, including a video display unit, a telephone, an audio output, and a personal computer port, extending from said seat portion;

a single power converter to transmit power to each of said plurality of electronic components; and

a ribbon cable operably associated with said power supply and including a plurality of conductors that transmit power through at least one of said plurality of conductors to said single power converter.

19. The seat assembly of claim 18, further comprising a single router to transmit the appropriate data signal to or from each of said plurality of electronic components; and

wherein at least one other of said plurality of conductors carries a signal to or from said single router.

20. The seat assembly of claim 19, further comprising a plurality of the seat assemblies wherein said ribbon cable operably interconnects said plurality of electronic components extending from the plurality seat assemblies.